



E-Glass Needle mat

Needle mat is a long-strand textile grade borosilicate glass fibre, which is mechanically consolidated, to form felt capable of withstanding severe thermal shock and vibration. This product is stable in arduous environments and does not accelerate corrosion of metallic components. Excellent thermal and acoustic properties make it suitable for use in many types of application. High uniformity and excellent acoustic absorption from relatively low thickness also make this material suitable for incorporation into acoustic curtains and panels, for applications where a combination of acoustic absorption (typically on one side) and sound blocking properties are frequently required.

TAP Spec guide

Chemical analysis:

Silicon Oxide	SiO ₂	54.5%
Aluminium Oxide	Al ₂ O ₃	14.8%
Iron Oxide	Fe ₂ O ₃	0.1%
Calcium Oxide	CaO	17.6%
Magnesium Oxide	MgO	4.5%
Sodium Oxide	Na ₂ O	0.4%
Potassium Oxide	K ₂ O	0.1%
Boron Oxide	B ₂ O ₃	8.0%

TAP Spec guide

Building Supervisory Certificate

Incendiary Class A1 acc. to Din 4102 (non combustibility)

Mean Filament Length	100mm
Nominal Density	140kg/m ³

Thermal Properties

Temperature	10	50	100	150	200	250	300	350	400
"K" value	.042	.044	.048	.054	.062	.071	.082	.094	.108

Peak Operational Temp: 600°C

Acoustic Properties

Typical absorption coefficients (a) at frequency & thickness

Frequency	100Hz	200Hz	400Hz	800Hz	1600Hz	3150Hz	6300Hz
Thickness 12mm	0.06	0.12	0.18	0.38	0.76	0.89	0.92